Mr. C. W. Ling, Assistant Observer, Havre, Mont., reports that the superintendent of public schools, with the high school class, visited the local Weather Bureau office on February 24 and received instruction in the use and construction of meteorological instruments, the work of the Weather Bureau, and methods of forecasting.

Mr. George A. Loveland, Section Director, Lincoln, Nebr., on February 14 delivered a lecture, "How the weather is made," before the Men's Club of the First Congregational Church.

Mr. E. H. Nimmo, Observer, Sandusky, Ohio, states that the class in physical geography visited the office in two sections on February 21 and 23. They were instructed in the use of instruments, the preparation of the daily weather map, and methods of forecasting.

Mr. George Reeder, Section Director, Columbia, Mo., is giving a course of lectures on meteorology and climatology at the University of Missouri.

Mr. Edward B. Richards, Section Director, Little Rock, Ark., delivered three lectures during February, at the local office of the Weather Bureau, to classes in physical geography from the Cramer School and the Peabody High School. The instruction consisted in an explanation of the instruments, weather maps and charts, and the value of the Weather Bureau records, with some remarks on forecasting and the general work and methods of the Bureau.

Mr. H. W. Richardson, Local Forecaster, Duluth, Minn., spoke on February 28 to the "Physiography Section" of the Duluth State Normal School, and on March 6 to the 35 pupils of the class in physical geography of the Superior, Wis., High School. In both cases the instrumental apparatus was thoroughly explained, followed by a lecture on forecasting and the general work of the Bureau.

Mr. George N. Salisbury, Section Director, Seattle, Wash., is giving a course of two lectures per week in practical meteorology at the University of Washington.

Mr. Richard H. Sullivan, Observer, Grand Junction, Colo., delivered a series of three lectures, illustrated with lantern slides, before the high school students and friends of the school, from 200 to 300 being in attendance. The lectures were as follows:

January 20. The atmosphere; pressure, temperature, moisture, winds, general circulation.

February 17. The Weather Bureau; history, explanation of apparatus, discipline, and detail work.

March 17. Four types of storms common to the United States—cyclones (warm waves and cold waves), hurricanes, thunderstorms, tornadoes; forecasting; and the Weather Bureau's relation to public interests.

Mr. John R. Weeks, Observer, Macon, Ga., on February 20, delivered a lecture, illustrated with lantern slides, before the Current Topics Club of Macon. On February 22 he addressed the Georgia State Fruit Growers' Association, in session at Macon. The lectures were on meteorology; the Weather Bureau and its work; the weather, what it is and how forecast; practical application of weather forecasts. In the lecture to the fruit growers particular stress was laid upon cold waves and the protection of fruit from frosts and injurious temperatures.—*F. O. S.*

THE WEATHER OF THE MONTH.

By Mr. WM. B. STOCKMAN, Chief, Division of Meteorological Records.

PRESSURE.

The distribution of mean atmospheric pressure is graphically shown on Chart VIII and the average values and departures from normal are shown in Tables I and V.

The mean barometric pressure for the month was highest over the slope and central valley regions, and the lowest over the southern Plateau and south Pacific regions.

The maximum mean readings ranged from 30.30 to 30.33 inches and were reported from the eastern parts of Kansas, Nebraska, South Dakota, and the western portions of Iowa and Missouri. The minimum mean reading was reported from southwestern California.

The mean pressure for the month was below normal in the western portions of Oregon and Washington, in Nevada, excepting the extreme northeastern portion, extreme southwestern Utah, western Arizona, and California, with the greatest negative departures, —.10 to —.14 inch, over California. In all other districts the mean pressure for the month was above the normal, and over the greater portion of the area of positive departure the changes were quite marked. Over northwestern Texas, Oklahoma and Indian Territories, extreme western Missouri, Kansas, Nebraska, and central and western South Dakota, the departures ranged from +.20 to +.25 inch, the maximum departures being reported from central Nebraska and western Kansas.

Over New England, except Maine, the Middle Atlantic States, northern portion of the South Atlantic States, upper Ohio Valley and Tennessee, lower Lake region, and southeastern portion of the upper Lake region, the mean pressure for the month increased over that of January, 1905; in all other districts it decreased from that of the preceding month. The increases in pressure were very slight, while the decreases were, as a rule, quite marked, and ranged from —.10 to —.18 inch over western Minnesota, the Dakotas, eastern Montana, western Colorado, northwestern New Mexico, southern Utah, southern Nevada, California generally, and northern Arizona.

TEMPERATURE OF THE AIR.

The mean temperature for the month was above the normal in Arizona, Utah, Nevada, California, Oregon, western Washington, northern North Dakota, and northwestern Minnesota. In all other districts the mean temperature for the month was below the normal.

As a rule the positive departures were rather slight—the greatest being +4.2° in southwestern California, and +5.1° in northwestern Minnesota—while the negative departures generally were very marked, being —6.0°, or more, over the greater portion of the area of deficient temperature, and from —10.0° to —13.4°, over Texas, except the extreme southwestern portion, Louisiana, except the extreme southeastern portion, Mississippi, northern Alabama, northwestern Georgia, Tennessee, Kentucky, southern Ohio, the southern and central portions of Indiana and Illinois, extreme southeastern Iowa, Missouri, except the extreme northwestern portion, Arkansas, Oklahoma and Indian Territories, Kansas, except the northeastern portion, and west-central Nebraska.

The mean temperature for the month was as low as any previously recorded during February at Atlantic City, N. J., Binghamton, N. Y., Block Island, R. I., Chattanooga, Tenn., Columbia, S. C., Fort Smith, Ark., Fort Worth, Tex., Indian-

apolis, Ind., Louisville, Ky., Northfield, Vt., Oklahoma, Okla., Palestine, Tex., Springfield, Ill., Springfield, Mo., and Washington, D. C.; 1° lower at Amarillo and Corpus Christi, Tex., Harrisburg, Pa., Nantucket, Mass., St. Louis, Mo., San Antonio, Tex., and Shreveport, La.; 2° lower at Birmingham, Ala., Hannibal, Mo., Lewiston, Idaho, Macon, Ga., and Richmond, Va.; 3° lower at Kalispell, Mont., and 7° lower at Taylor, Tex. At Fresno, Mount Tamalpais, and San Luis Obispo, Cal., the mean temperature for the month was as high as any previous February record; 1° higher at Point Reyes Light and San Diego, Cal., and 3° higher at North Head, Wash.

Maximum temperatures of 80°, or higher, occurred in southern and central Florida, south-central Texas, southwestern Arizona, and southeastern California. The lowest maximum temperatures recorded ranged between 30° and 40° and were reported from northwestern New England, northwestern Ohio, northeastern Indiana, lower Michigan, and eastern upper Michigan.

The maximum temperature for the month was as high as recorded during any previous February at Cheyenne, Wyo., and Portland, Oreg.; 1° higher at Tacoma, Wash.; 2° at Williston, N. Dak.; 3° at Havre, Mont., and 4° higher at Lincoln, Nebr.

Freezing temperatures occurred everywhere, except in central and southern Florida, and the southwestern portions of Arizona and California. Zero temperatures occurred as far south as a line drawn from northeastern Massachusetts southwestward to central Alabama, thence northwestward to central Arkansas, southwestward to the southern boundary of eastern Arizona, northwestward to east-central California, and northward to the northern boundary of central Washington. Minimum temperatures of from 40° to 50° below zero were reported from extreme northern Minnesota, the extreme northern, western, and south-central portions of North Dakota, northwestern South Dakota, Wyoming generally, west-central Colorado, and eastern and north-central Montana; and temperatures 50° to 53° below, from north-central Montana and portions of central Wyoming.

The minimum temperature for the month was as low as recorded during any previous February at Knoxville, Tenn., and Lincoln, Nebr.; 1° lower at Omaha, Nebr., and Pierre, S. Dak.; 2° lower at Cheyenne, Wyo., and Davenport and Des Moines, Iowa; and 5° lower at Hannibal, Mo., and Keokuk, Iowa.

The mean temperature for the day was 10°, or more, below the normal generally over the geographic district in New England on the 1st, 3d to 5th, inclusive, 11th, 12th, 14th to 16th, inclusive, 18th, and 19th; Middle Atlantic States, 1st to 5th, inclusive, 8th, 11th, 14th to 16th, inclusive, 18th and 19th; South Atlantic States, 3d to 5th, inclusive, 7th, 8th, and 14th to 19th, inclusive; Florida Peninsula, 15th; east Gulf States, 2d to 8th, inclusive, 13th to 16th, inclusive, and 18th to 20th, inclusive; west Gulf States, 1st to 8th, inclusive, and 12th to 20th, inclusive; Ohio Valley and Tennessee, 1st to 7th, inclusive, and 10th to 18th, inclusive; lower Lake region, 2d to 4th, inclusive, 7th, 11th, 13th to 16th, inclusive, and 18th; upper Lake region, 1st to 3d, inclusive, 7th, 10th to 15th, inclusive, and 18th; upper Mississippi Valley, 1st to 4th, inclusive, 6th, 7th, and 10th to 16th, inclusive; Missouri Valley, 1st to 7th, inclusive, and 9th to 15th, inclusive; North Dakota, 1st to 6th, inclusive, and 9th to 13th, inclusive; northern slope, 1st to 6th, inclusive, and 9th to 12th, inclusive; middle slope, 1st to 7th, inclusive, and 9th to 15th, inclusive; southern slope, 1st to 10th, inclusive, 12th to 14th, inclusive, 18th and 19th; southern Plateau, 13th; middle Plateau, 11th to 14th, inclusive; northern Plateau, 11th to 13th, inclusive; and north Pacific, 11th and 12th. The mean temperature for the day was 10°, or more, above the normal generally over the district in the upper Lake region on the 20th and 25th; upper Mississippi Valley, 28th; Missouri Valley, 22d to 28th, inclusive; North Dakota and northern slope, 19th to 28th, inclusive; middle slope, 23d to 25th, inclusive, 26th and 28th; southern slope, 26th; and northern Plateau, 20th to 25th, inclusive, 27th, and 28th.

The average temperatures for the several geographic districts and the departures from the normal values are shown in the following table:

Average temperatures and departures from normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	8	19.8	— 5.8	— 9.0	—4.5
Middle Atlantic	12	25.4	— 8.4	—11.8	—5.9
South Atlantic	10	40.3	— 8.6	—12.9	—6.4
Florida Peninsula *	8	61.3	— 1.2	— 5.4	—2.7
East Gulf	9	42.9	—10.3	—15.9	—8.0
West Gulf	7	39.9	—11.6	—14.5	—7.2
Ohio Valley and Tennessee	11	26.9	—10.6	—17.1	—8.6
Lower Lake	8	18.4	— 8.1	—12.4	—6.2
Upper Lake	10	13.4	— 5.5	— 8.9	—4.4
North Dakota *	8	8.3	+ 1.2	— 3.7	—1.8
Upper Mississippi Valley	11	16.9	— 9.2	—14.3	—7.2
Missouri Valley	11	16.6	— 7.9	—13.1	—6.6
Northern Slope	7	16.6	— 4.4	— 3.7	—1.8
Middle Slope	6	23.4	— 9.0	—13.3	—6.6
Southern Slope *	6	28.9	—11.4	—15.9	—8.0
Southern Plateau *	13	42.9	+ 0.6	+ 3.7	+1.8
Middle Plateau *	8	30.3	+ 1.2	+ 4.8	+2.4
Northern Plateau *	12	28.2	— 0.6	+ 3.1	+1.6
North Pacific	7	42.9	+ 2.3	+ 4.3	+2.2
Middle Pacific	5	52.2	+ 3.0	+ 5.8	+2.9
South Pacific	4	56.7	+ 3.2	+ 7.8	+3.9

* Regular Weather Bureau and selected cooperative stations.

In Canada.—Prof. R. F. Stupart says:

The mean temperature of February was above average in Manitoba and the Northwest Territories and in parts of British Columbia, and was below average from Lake Superior to the Maritime Provinces. The positive departures in the Northwest Territories ranged from 1° at Calgary to 5° at Edmonton and 8° at Prince Albert, and were in strong contrast to the conditions of February, 1904, in which month the departures from average were all negative, ranging from 6° in Manitoba to as much as 15° in Alberta. In northern Ontario the mean was about 4° below the average, and in southern Ontario it was 6° below. In Quebec it ranged between 3° and 5° below, and in the Maritime Provinces between 2° and 6° below.

PRECIPITATION.

The precipitation was above the normal in southeastern Virginia, eastern and central North Carolina, South Carolina, central and southern Georgia, northern Florida, Alabama, Mississippi, Louisiana, southeastern and western Texas, western Oklahoma, western and central Kansas, southern Nebraska, southeastern Wyoming, Colorado, New Mexico, Arizona, southern Nevada, southern California, northeastern Iowa, southeastern Wisconsin, and about the eastern end of Lake Ontario; in all other districts it was below the normal. The greatest excesses occurred over southwestern Alabama, and the greatest deficiencies in northwestern California, western Oregon, and southwestern Washington.

Precipitation was general over the several districts on the dates given: New England, 2d, 6th, 9th, 10th, 12th, 13th, 15th, and 17th; Middle Atlantic States, 1st, 2d, 5th, 6th, 8th, 9th, 12th, 13th, 15th, 20th, 22d, 23d, 25th, 26th, and 28th; South Atlantic States, 1st to 6th, inclusive, 8th, 9th, 11th to 13th, inclusive, 20th, 21st, and 25th; Florida Peninsula, 3d, 4th, 11th, 13th, and 14th; east Gulf States, 3d to 8th, inclusive, 11th to 13th, inclusive, 19th, and 20th; west Gulf States, 1st to 4th, inclusive, 6th to 8th, inclusive, 11th, 12th, and 17th to 19th, inclusive; Ohio Valley and Tennessee, 1st, 5th, 6th, 8th, 9th, 12th, 13th, 20th, 25th, and 27th; lower Lake region, 1st, 4th to 6th, inclusive, 8th to 10th, inclusive, 12th to 15th, inclusive, 17th, 22d, and 25th; upper Lake region, 5th, 6th, 8th, 10th, 11th, 12th, 14th, 16th, 17th, and 24th; upper Mississippi Valley, 4th, 5th, 6th, 7th, 11th, 14th, and 24th; Missouri Valley, 3d to 5th,

inclusive, 8th to 11th, inclusive, and 14th; North Dakota, 8th, 10th, 13th, and 16th; northern slope, 8th, and 10th; middle slope, 1st to 8th, inclusive, and 10th to 12th, inclusive; southern slope, 1st to 7th, inclusive, 12th, 17th, and 18th; southern Plateau, 2d to 6th, inclusive, 15th to 18th, inclusive, 22d, 23d, 27th, and 28th; middle Plateau, 1st to 3d, inclusive, 5th, 10th, 11th, and 16th; northern Plateau, 3d, 7th, 9th, 10th, and 20th; north Pacific, 7th to 9th, inclusive, 17th to 24th, inclusive, and 27th; middle Pacific, 1st to 5th, inclusive, 16th, 17th, and 19th; and south Pacific, 1st to 5th, inclusive, and 15th to 17th, inclusive.

Snowfall occurred over the entire United States except in the southern portion of Georgia, Florida, southwestern Arizona, and along the coast and over the lowlands of California. Over the southern portion of the Rocky Mountain and Plateau regions the snowfall was generally above the normal.

At the end of the month considerable snow still remained on the ground in New England, New York, Michigan, and Wisconsin, with measurable amounts extending south to the Ohio River and into the mountain sections of Maryland and the Virginias, and westward to the Mississippi Valley. Over the Great Plains the snow had practically disappeared, as also over the Mountain and Plateau regions, except at elevated points.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		Inches.		*Inches.*	*Inches.*
New England	8	1.78	51	—1.7	—1.5
Middle Atlantic	12	2.50	76	—0.8	—0.8
South Atlantic	10	4.90	132	+1.2	—0.9
Florida Peninsula*	8	2.52	81	—0.6	—2.0
East Gulf	9	7.08	151	+2.4	+2.6
West Gulf	7	2.88	85	—0.5	—1.0
Ohio Valley and Tennessee	11	2.83	67	—1.4	—3.1
Lower Lake	8	1.85	67	—0.9	—1.0
Upper Lake	10	1.28	68	—0.6	—1.2
North Dakota*	8	0.34	63	—0.2	—0.5
Upper Mississippi Valley	11	1.24	67	—0.6	—1.0
Missouri Valley	11	1.05	84	—0.2	—0.1
Northern Slope	7	0.31	51	—0.3	—0.4
Middle Slope	6	0.77	100	0.0	+0.1
Southern Slope*	6	1.42	173	+0.6	+0.2
Southern Plateau*	13	3.01	249	+1.8	+2.6
Middle Plateau*	8	1.53	124	+0.3	0.0
Northern Plateau*	12	0.64	42	—0.9	—1.6
North Pacific	7	3.35	59	—2.3	—4.3
Middle Pacific	5	2.33	55	—1.9	—2.2
South Pacific	4	5.09	189	+2.4	+1.6

*Regular Weather Bureau and selected cooperative stations.

In Canada.—Professor Stupart says:

The precipitation was less than average throughout the Dominion, except locally near Montreal and in the Maritime Provinces. In the Territories and Manitoba the total for the month was but a few inches of snow. In Ontario and Quebec the precipitation was almost wholly in the form of snow, of which the total fall was not heavy, averaging between 12 and 23 inches, except quite locally over small districts, where there were moderately heavy falls.

In the Maritime Provinces the snowfall was heavy in Nova Scotia and Prince Edward Island and was quite equal to average in New Brunswick.

At the close of the month Manitoba and the Territories were bare of snow, with the exception of a very small amount in some of the more northern and wooded districts. From Lake Superior eastward the Dominion was snow covered. In Ontario the depth varied generally between 18 and 30 inches, with more in small scattered districts on the higher lands and less in the Niagara Peninsula. In Quebec the depth ranged from about 26 to 42 inches and in the Maritime Provinces the general depth was even greater, and as much as 50 inches on the level was reported from Charlottetown.

HUMIDITY.

The relative humidity was normal in the Middle and South Atlantic States, and middle Pacific district; below normal in New England, North Dakota, and the northern Plateau and north Pacific districts; and above normal in all other districts.

The averages by districts appear in the following table:

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
	%			%	
New England	70	— 5	Missouri Valley	80	+ 5
Middle Atlantic	74	0	Northern Slope	75	+ 4
South Atlantic	76	0	Middle Slope	76	+ 9
Florida Peninsula	81	+ 1	Southern Slope	77	+ 9
East Gulf	78	+ 2	Southern Plateau	69	+22
West Gulf	75	+ 1	Middle Plateau	73	+ 9
Ohio Valley and Tennessee	77	+ 3	Northern Plateau	72	— 3
Lower Lake	81	+ 1	North Pacific	74	—11
Upper Lake	83	+ 1	Middle Pacific	76	0
North Dakota	78	— 2	South Pacific	73	+ 4
Upper Mississippi Valley	85	+ 8			

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which also gives the altitude of Weather Bureau anemometers above ground.

Following are the velocities of 50 miles and over per hour registered during the month:

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Block Island, R. I.	13	51	nw.	New York, N. Y.	7	61	nw.
Do	18	52	w.	Do	13	56	nw.
Do	26	52	nw.	North Head, Wash	7	60	nw.
Do	27	51	w.	Do	19	74	se.
Buffalo, N. Y.	10	62	sw.	Do	20	60	s.
Do	13	54	w.	Do	21	66	se.
Do	14	55	w.	Do	22	70	se.
Do	17	58	w.	Tatoosh Island, Wash.	1	70	e.
Cleveland, Ohio	17	50	w.	Do	2	56	e.
Mount Tamalpais, Cal.	10	50	nw.	Do	7	64	nw.
Mount Weather, Va.	3	50	nw.	Do	10	66	ne.
Do	7	50	nw.	Do	11	52	e.
Do	13	60	nw.	Do	16	60	e.
Do	15	52	nw.	Do	17	59	e.
Do	17	52	nw.	Do	19	52	sw.
Do	18	52	nw.	Do	21	62	e.
Do	26	54	nw.	Do	26	52	e.

CLEAR SKY AND CLOUDINESS.

The cloudiness was above normal in the Middle, South Atlantic, and Gulf States, Ohio Valley and Tennessee, the middle and southern Slope and Plateau and south Pacific regions; and below normal in the remaining districts.

The distribution of clear sky is graphically shown on Chart IV, and the numerical values of average daylight cloudiness, both for individual stations and by geographic districts, appear in Table I.

The average for the various districts, with departures from the normal, are shown in the following table:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	4.9	— 0.6	Missouri Valley	4.4	— 1.0
Middle Atlantic	5.8	+ 0.2	Northern Slope	3.7	— 1.1
South Atlantic	6.5	+ 1.2	Middle Slope	5.6	+ 1.2
Florida Peninsula	4.4	— 0.2	Southern Slope	6.2	+ 1.4
East Gulf	6.7	+ 1.2	Southern Plateau	6.2	+ 2.8
West Gulf	6.5	+ 0.7	Middle Plateau	5.9	+ 1.1
Ohio Valley and Tennessee	6.4	+ 0.2	Northern Plateau	5.1	— 1.6
Lower Lake	6.5	— 0.3	North Pacific	5.5	— 1.5
Upper Lake	5.8	— 0.5	Middle Pacific	4.6	— 0.2
North Dakota	3.5	— 1.6	South Pacific	5.6	+ 1.5
Upper Mississippi Valley	4.9	— 0.4			

DESCRIPTION OF TABLES AND CHARTS.

By Mr. WM. B. STOCKMAN, Chief, Division of Meteorological Records.

For description of tables and charts see page 20 of REVIEW for January, 1905.